

WHAT IS CLAIMED IS:

1. A apparatus comprising:

a start processing unit which conduct a start processing, and then start an application when power of
5 a apparatus system is turned on;

a trouble monitoring unit which control the power of the apparatus system, and integrally monitor a trouble of said start processing unit and a trouble during system operation; and

10 a trouble notification unit which acquire log information stored in said start processing unit, and notify an external remote maintenance system of the log information through a network interface if said trouble monitoring unit detects the trouble of said start
15 processing unit.

2. A apparatus according to claim 1, wherein

said start processing unit is provided on a baseboard, said trouble monitoring unit is provided on an integrated management panel board, and said trouble
20 notification unit is provided on a system management support board, the system management support board comprising a dedicated power unit constantly supplied with power, a board interface connected to said integrated management panel board, and the network
25 interface connecting said remote maintenance system.

3. A apparatus according to claim 2, wherein
said system management support board is an

interface board connected to an interface provided on the baseboard of the apparatus system.

4. A apparatus according to claim 3, wherein
said system management support board is a PCI board
5 connected to a PCI bus provided on the baseboard of the apparatus system.

5. A apparatus according to claim 1, wherein
a monitoring agent which monitor the trouble of
the trouble notification unit provided on said system
10 management support board is provided on the apparatus
system side as an application, and an interface coupled
to said monitoring agent is provided on said system
management support board.

6. A apparatus according to claim 5, wherein
15 the interface coupled to said monitoring agent is
a PCI bus.

7. A apparatus according to claim 5, wherein
said trouble notification unit on the system
management support board stores a communication failure
20 flag in a memory when notification of an alarm message
and the log information to the remote maintenance system
fails; and

if the apparatus system is restarted, said
monitoring agent on the apparatus system side notifies
25 said remote maintenance system of the alarm message
indicating that a communication trouble occurred to said
trouble notification unit through the network interface

on the baseboard based on said communication failure flag.

8. A apparatus according to claim 5, wherein
said trouble notification unit on the system
5 management support board regularly communicates with
said remote maintenance system using a network interface
of the trouble notification unit, and stores a
communication failure flag in a memory when detecting
abnormality of communication; and
10 said monitoring agent on the server system side
notifies said remote maintenance system of an alarm
message indicating a communication trouble on said
trouble notification unit side through the network
interface on the baseboard based on said communication
15 failure flag.

9. A apparatus according to claim 5, wherein
said monitoring agent on the communication system
side regularly issues a regular notification command
indicating that the apparatus system side normally
20 operates; and

 said trouble notification unit on the system
 management support board detects that the apparatus
 system is abnormal if said regular notification command
 is stopped, and notifies the remote maintenance system
25 of an alarm message.

10. A system management support apparatus,
comprising:

5 a power supply unit which constantly supply power;
 a board interface which control power of a
 apparatus system, and connect to an integrated
 management panel board for monitoring a trouble of the
 apparatus system;

10 a network interface connecting an external remote
 maintenance system; and
 a trouble notification unit which acquire log
 information when receiving trouble information
15 generated since the power of the system is turned on until
 a start processing is conducted and an application is
 started, from said integrated management panel board,
 and notify the external remote maintenance system of the
 log information, wherein
 said power supply unit, said board interface, said
 network interface and said trouble notification unit are
 provided on a board connectable to an interface of the
 apparatus system.

20 11. An apparatus according to claim 10, wherein
 said power supply unit, said board interface, said
 network interface and said trouble notification unit are
 provided on an interface board connected to an interface
 provided on a baseboard of the apparatus system.

25 12. An apparatus according to claim 10, wherein
 said power supply unit, said board interface, said
 network interface and said trouble notification unit are
 provided on a PCI board connected to a PCI bus provided

on a baseboard of the apparatus system.

13. An apparatus according to claim 10, wherein
an interface coupled to a monitoring agent
provided on the apparatus system side as an application
5 is provided.

14. An apparatus according to claim 13, wherein
the interface coupled to said monitoring agent is
a PCI bus.

15. An apparatus according to claim 14, wherein
10 said trouble notification unit stores a
communication failure flag in a memory when notification
of an alarm message and the log information to the remote
maintenance system fails; and

if the apparatus system is restarted, said
15 monitoring agent on the apparatus system side notifies
said remote maintenance system of the alarm message
indicating that a communication trouble occurred to said
trouble notification unit through the network interface
on the baseboard based on the communication failure
20 flag.

16. An apparatus according to claim 14, wherein
said trouble notification unit regularly
communicates with said remote maintenance system using
a network interface of the trouble notification unit,
25 and stores a communication failure flag in a memory when
detecting abnormality of communication; and
said monitoring agent on the apparatus side

notifies said remote maintenance system of an alarm message indicating abnormality of communication on said trouble notification unit side through the network interface on the baseboard based on said communication 5 failure flag.

17. An apparatus according to claim 14, wherein said trouble notification unit detects that the apparatus system is abnormal if a regular notification command regularly issued from the monitoring agent on 10 the apparatus system side is stopped, and notifies the remote maintenance system of an alarm message.

18. A apparatus system management method comprising:

15 a start processing operation of conducting a start processing, and then starting an application when power of a computer system is turned on;

19 a trouble monitoring operation of controlling the power of the computer system, and integrally monitoring a trouble of said start processing unit; and

20 a trouble notification operation of acquiring log information, and notifying an external remote maintenance system of the log information through a network interface if the trouble of said start processing unit is detected in said trouble monitoring 25 operation.

19. A method according to claim 18, wherein a monitoring agent provided on the apparatus

system side as an application monitors the trouble in said trouble notification operation.

20. A method according to claim 19, wherein
in said trouble notification operation, a
5 communication failure flag is stored in a memory when
notification of an alarm message and the log information
to the remote maintenance system fails; and

if the apparatus system is restarted, said
monitoring agent notifies said remote maintenance
10 system of the alarm message indicating that a trouble
occurred to said trouble notification operation through
the network interface on the computer system side based
on said communication failure flag.

21. A method according to claim 19, wherein
15 in said trouble notification operation,
communication with said remote maintenance system is
regularly established using a network interface, and a
communication failure flag is stored in a memory when
abnormality of the communication is detected; and
20 said monitoring agent notifies said remote
maintenance system of an alarm message indicating
abnormality of the communication in said trouble
notification operation through the network interface on
the apparatus system side based on said communication
25 failure flag.

22. A method according to claim 19, wherein
said monitoring agent regularly issues a regular

notification command indicating that the apparatus system normally operates; and

in said trouble notification operation, abnormality of the apparatus system is detected if said 5 regular notification command is stopped, and an alarm message is notified to the remote maintenance system.

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